

DIGITALISATION TRENDS IN FINANCIAL SERVICES



VERENA ROSS

Chair - European Securities
and Markets Authority (ESMA)

Embracing the digital age of finance

From Gutenberg's invention of the printing press to the arrival of IBM's first personal computer, technological innovation has always been a symbol of progress in society. We are now in an era where digital technologies are profoundly changing the way we learn, work, and interact with one another. This in turn providing an opportunity to create a competitive digital EU economy and an open society. Clearly, the world of finance is very much at the centre of this.

Digital technologies are reshaping the financial services industry and paving the way for innovative financial products and services for consumers, as well as transforming traditional value chains and giving rise to new business models and entrants. Digitalisation is making finance more competitive, accessible and inclusive. New FinTechs and mobile applications are constantly emerging, offering cheaper, simplified and faster access to finance for consumers. Advancements in artificial intelligence (AI) are improving the speed and capabilities with which the plethora of modern data can be analysed in order to improve human decision-making and reduce risk. Distributed Ledger Technology (DLT) holds much promise in decentralising the recording of transactions and reducing the need for costly intermediated chains. Cloud computing technology has improved the storage capacity and recording of data, enabling better access and management of customer information.

While all these possibilities give good cause for excitement, it is equally important to be mindful of the risks and challenges that digitalisation brings. Across the broad spectrum of emerging innovations, we must remain vigilant to the risks of greater exposure to potential cybercrime, operational resiliency failures, and data protection and privacy issues, especially in a world where such threats are increasing across society. We also face challenges in addressing accountability and transparency issues, as well as market concentration issues with potential overdependence on third-party providers.

It is for these reasons that pioneering public policy is crucial. The EU has been at the forefront of embracing the need for ground-breaking policy considerations. The European Commission's Digital Finance Strategy in 2020 set the ground-work, with the objective to adapt the financial regulatory and supervisory framework to the increasing digitalisation of the EU financial sector. Much progress has been made since then, in particular in recent months with political agreement being

reached on key legislative initiatives on new safeguards for crypto-assets (MiCA) and strengthening digital operational resilience standards (DORA).

The DLT pilot regime has also been set in place to facilitate market infrastructures in exploring tokenisation solutions for trading and settlement. More broadly, rules have been introduced to tackle large, systemic online platforms (Digital Markets Act), while discussions are advancing on harmonising rules for AI (AI Act).

Such novel frameworks require a careful balance of focused standard setting for aligned activities (same activity, same rule) on the one hand, and proportionality and flexibility on the other. Only if we get this balance right can we protect investors, ensure market integrity and protect financial stability, while also allowing innovation to flourish. Both MiCA and DORA include important new mandates for the European Supervisory Authorities (ESAs) to refine the applicable rules for crypto assets and digital resilience and reflect further on that important balance. Earlier this year, the ESAs also put forward ideas to ensure that the EU's regulatory and supervisory framework remains fit-for-purpose in the digital age, which focused on adequate supervisory oversight, strong consumer protection, and ensuring a level-playing field.

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The potential for innovation to outpace regulation makes it essential for supervisors to be agile and responsive. To remain abreast of rapidly changing technology, supervisory authorities like ESMA must continue to build expertise and talent. As supervisors we should also embrace new technologies in how we conduct our supervisory tasks.

All in all, the exceptional pace of digital innovation in finance to date shows us that we are still only at the beginning of this new era. In anticipation of what is to come, we remain excited but vigilant.



ONDŘEJ KOVAŘÍK

MEP, Committee on Economic and Monetary Affairs -
European Parliament

Digital finance legislation must balance innovation and consumer protection

In September 2020, the European Commission adopted a digital finance strategy, setting out the general lines of how the EU can support the digital transformation of finance while also sufficiently addressing its risks. In the European Parliament, we adopted the Digital Finance Legislative Initiative Report, which outlined the main areas we considered important to legislate on the European level in order to achieve similar objectives.

The institutions therefore recognised that new legislation was necessary in order to both support and regulate the increasing digitalisation in the financial sector. This proactive approach has led to the EU agreeing various measures which aim to facilitate the digital transition in the finance sector. These include three initiatives proposed by the Commission in 2020 - the Markets in Crypto Assets Regulation, the Digital Operational Resilience Act and the Distributed Ledger Technology (DLT) Pilot Regime.

These pieces of legislation aim to provide an appropriate framework for supporting the growing digitalisation in the financial sector. They address different areas - trading in digital assets, cyber resilience in the financial sector, and the further development of new technologies which could bring efficiencies to the sector.

In negotiating the first pieces of legislation, the institutions aimed to ensure that they took a risk-based approach, that all measures allowed sufficient flexibility to encourage innovation and global competitiveness, while addressing the risks in the sector. Furthermore, given that the EU is a pioneer in regulating the digital finance sector, we were also determined to have a sufficiently flexible regime in terms of the future development of both technologies and the financial sector as a whole. Therefore, the approach as much as possible was to regulate in a technologically neutral manner.

Going forward, and with the first pieces of legislation taking effect both in Europe and around the world, we will have a benchmark from which to develop our regulatory regime. Frequent reviews and consultations will be necessary to fine-tune the legislation in order to calibrate the right balance between encouraging innovation while also ensuring sufficient protection for consumers.

There are some concerns, both in the digital finance sector itself and also among some policymakers, that the first set of rules for the crypto-sector, for example, are overly prescriptive and could harm the development possibilities in Europe. Indeed, given the fast-paced development even between the period of the Commission's proposal and the final agreement, it is clear that updated impact assessments and public consultations will be necessary in order to keep

on top of the innovations in the crypto sector. These would enable policy makers to take decisions to better reflect the dynamic nature of the sector.

In terms of supervision, it's clear that the digitalisation of the financial sector reflects the increasingly borderless nature of many of our day to day transactions. Therefore, it makes sense to have further involvement of supervisory authorities on the European level, as well as greater global cooperation to address, for example, money laundering risks and to share information about the global trends. However, it would not always make sense for the smallest actors to be supervised on a European level. Thus there needs to be a combination of both national and European supervision.

The ability to act quickly and proportionately will be paramount in the years to come.

One aspect of financial supervision which must evolve to reflect the digitalisation of financial services is the use of new supervisory tools and technologies to better address the development of the sector. Already in the initial pieces of legislation, we have made reference to new regulatory and supervisory technology to be used in order to have a broader range of tools to optimise supervision.

Going forward, we will have new initiatives and updated legislation which should reflect this increasing trend of digitalisation, for example the approach to open finance and also an updated Payment Services Directive. The Commission must keep its pulse on developments in order to react to potential innovation and also to emerging risks in the financial services sector brought about by increasing digitalisation. The ability to act quickly and proportionately will be paramount in the years to come.



BÁRBARA NAVARRO

Head of Research and Public Policy -
Banco Santander

**Simplify. Adapt.
Overcome.**

Financial firms, seen for some time as digital laggards, undertook a big part of their digitalization process ahead of COVID-19. It was accelerated by the emergence of fintechs, the growth of digital platforms and Big Techs, and the pandemic itself. Banks work together with such companies, and have even learnt from them. Digitalization is no longer seen as an alien component, but as a core embedded part of the business.

Promising applications and expected benefits continue to materialize. Thanks to Artificial Intelligence (AI), we are offering new products and ways of using existing ones (e.g. robo-advisors, paying using biometric authentication and chat-bots). Cloud has created a new paradigm for banks IT infrastructure. It provides simplicity while continuing to provide solid trust and security, which banks have always delivered to customers.

As digitalization moves forward, new challenges and risks continue to emerge. Cyber threats are at the top of the list. The growing dependence on technology providers, by the financial sector, has raised authorities' attention on how to strengthen financial institutions' ability to manage third-party risks. Also, new technologies might enable the development of new services and industries. This is the case of crypto-assets, which pose opportunities, but also risks, if not properly regulated and supervised.

Both risks and challenges have been well noted by regulators and authorities; and they are moving ahead.

At EU level, regulators are in the process of implementing the so-called Digital Finance package: DORA (cyber resilience), MiCA (crypto-assets) and the pilot regime. Other positive outcomes are the harmonization of the EU's anti-money laundering efforts; the creation of a digital identity; and the formal adoption of the Digital Markets Act (DMA), which will help bringing a level-playing field in digital markets.

Going forward, everything will be digital. Thus, in order to make sure we are able to adapt and innovate, there are three reflections I would like to share with you:

Firstly, regulation and supervision should be simple and future-proof – based on principles and guidelines. New cross-sectorial regulations, focused on the use of technology, such as the AI regulation, risk adding a new regulatory layer on questions that are already regulated for banks; e.g. credit provision and creditworthiness assessments.

Secondly, as new regulations will come with new cross-sectorial enforcement authorities, there could be an overlap. Harmonization and cooperation among different authorities,

in Europe and across borders, will be key to ensure legal certainty. For Europe to have global players, we need global consistent regulatory approaches.

Thirdly, all these new regulations will help providing security and assurances to the financial sector. This reinforces the idea that, as part of one of the most regulated sectors, banks are well-positioned to offer new products and services, which are not yet fully regulated. Banks should be given room for manoeuvre, while regulation catches up with those new products, services, and even with non-regulated actors.

One more thought. Data has demonstrated the crucial role it plays, however, there are unexploited opportunities. With access to cross-sectorial data, banks could be able to provide more and better (tailored) credit, reducing the number of cases in which credit is denied. Mandatory access rights, under PSD2, forced banks to open core transactional data without reciprocity and fair compensation. I am concerned about the upcoming Open Finance proposal, which could continue this path by opening further financial data (banking, insurance, investments and pensions).

**A principles-based regulation
that can bring banks' strength
to the customers' benefit.**

The right approach: an EU voluntary data sharing framework, customer centric (to their benefit) and cross-sectorial (data from all sectors participating in the economy). It is the combination of data from different sectors which holds the greatest potential for delivering new services and experiences for customers.

Citizens and companies continue to adapt to the digital world, marking the path to be followed. Regulation and supervision must do the same. Today, more than ever, collaboration between the public and the private sector is key to understand opportunities and to avoid risks.



SCOTT MULLINS

Managing Director & General Manager -
AWS Worldwide Financial Services

Accelerating the digitalization of the EU financial services sector

Financial organisations have accelerated their adoption of the cloud to help them navigate the global pandemic and other challenges presented over the last 2.5 years. The cloud has played a pivotal role in helping to expand digital services in the financial services sector, such as online banking and instant and contactless payments when consumers needed them most. Providing relevant and responsible personalization and seamless interactions is now expected by consumers and provides an opportunity for institutions to remain competitive and optimize consumer engagement. Consumers want more personalized, seamless interactions, and on-demand customer service via their preferred channels, and consistent experiences across all channels.

The European Commission (EC) has proposed a bold vision for Europe's digital transformation by 2030. According to a new study by Public First—Unlocking Europe's Digital Potential—the EC's Digital Decade could unlock an extra 2.8 trillion euros in economic value for Europe's citizens. Over half of this projected figure relies on the increased adoption of cloud computing and accelerating the digitalization of organizations of all sizes and across all sectors, including financial services.

Reports by industry analysts indicate that the financial services industry is at a tipping point, with Deloitte noting that they need to disrupt or be disrupted. While still in the early stages of adoption, an increasing number of financial institutions are modernizing legacy systems to meet growing consumer expectations for digital channels and personalized products, reducing time-to-market for new products and services, responding to increasing cyber threats and enhancing their security and operational resilience.

The cloud is helping more financial services organizations achieve this by enabling access technologies – from compute, storage, and databases, through to artificial intelligence (AI), data lakes, Internet of Things (IoT), and fully-managed data management and analytics services – on demand. In particular, the use of artificial intelligence and machine learning (AI/ML) is accelerating across the industry and most companies are either investing in these technologies or planning to do so. We are seeing customers, from insurers to banks and asset managers, accelerate their adoption plans due to the availability of cost-effective and virtually unlimited capacity in data storage and compute power from cloud services.

Cloud is also enabling the digitalization of the financial sector by providing increased agility and the ability to create resilient, real-time, highly available applications which are able to scale rapidly on demand. At the same time, firms are achieving higher levels of security by leveraging secure

infrastructure and newer technologies, such as continuous monitoring. This move is helping institutions to manage the operational risks within their cloud environment and ensure they have sufficient processes and security measures in place to support encryption, authentication, and reporting.

We expect to see more automation in security with infrastructure and application checks that can help enforce security and compliance controls continuously while reducing human configuration errors. These processes allow financial institutions to maintain the confidentiality and integrity that their customers demand, while maintaining timely and accurate reporting required by industry regulators

Regulatory certainty and the ability for financial firms to choose from the world's best technologies, so they can continue to innovate and compete at home and globally, are fundamental to this transformation process. The Digital Operational Resilience Act (DORA) provides an opportunity to accelerate the modernization and digitalization of EU financial services firms, bringing innovation, security and resiliency benefits for the sector.

While still in the early stages of adoption, an increasing number of financial institutions are modernizing legacy systems to meet growing consumer expectations.

While DORA does not introduce requirements that could limit a financial entity's ability to freely choose its service providers, this freedom to choose needs to be replicated in all legislation that impacts the sector. The ability to make technology choices based on customer needs, not limited by where the technology provider is headquartered, is critical for growth, economic development, and global competitiveness. This is crucial at a time when we see increasing cyber-threats, including from hostile states, with potential implications for financial stability.

As the European regulatory landscape evolves, AWS will continue to provide the financial services industry with the most advanced data control, security, and privacy capabilities, empowering the EU's financial sector with additional choices to address its needs as it continues to modernize.